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## DETAILED DESCRIPTION

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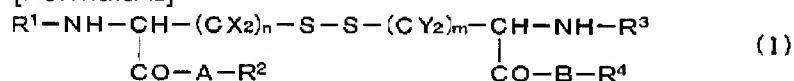
[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the manufacturing method of the cosmetics which blend the cystine derivative and basic amino acid which are expressed with following general formula (I) without generating an unpleasant smell.

[0002]

[Formula 2]



the inside of a formula,  $\text{R}^1$ , and  $\text{R}^3$  -- respectively -- independent -- a hydrogen atom. An aminocarbonyl group, an alkyl group with 1-22 carbon atoms, an acyl group with 2-22 carbon atoms, The number of carbon atoms of a hydroxyalkyl group with 1-22 carbon atoms or an alkoxy group expresses the 3-alkoxy 2-hydroxypropyl group of 1-22, As for two X and two Y, an alkyl group with a hydrogen atom or 1-6 carbon atoms, and n and m express the integer of 0-5 independently, respectively. A and B express -O- or -NH- independently, respectively, and independently  $\text{R}^2$  and  $\text{R}^4$ , respectively A hydrogen atom, The number of carbon atoms of an alkyl group with 1-22 carbon atoms, a hydroxyalkyl group with 1-22 carbon atoms, or an alkoxy group expresses the 3-alkoxy 2-hydroxypropyl group of 1-22. [0003]

[Description of the Prior Art] As a cystine derivative of the above-mentioned general formula (I) display, it is known, for example that N,N'-diacetyl cystine dimethyl ester has an effective effect as skin cosmetics, such as an antioxidant action and whitening actions. However, since an unpleasant smell was generated when basic amino acid is included as an alkali during the formula containing the cystine derivative of the above-mentioned general formula (I) display, the cosmetics which can be used had restriction.

[0004]

[Problem(s) to be Solved by the Invention]The purpose of this invention is to provide the manufacturing method of the cosmetics which blend the cystine derivative and basic amino acid of the above-mentioned general formula (I) display with a cosmetics substrate without being accompanied by generating of an unpleasant smell.

[0005]

[Means for Solving the Problem]An anionic water soluble polymer which contains a carboxyl group in a molecule as the 1st step wholeheartedly in view of this situation, this invention persons, as a result of research. By fully mixing [ (which is hereafter written as "carboxyl group content anionic polymers") ] basic amino acid, making it neutralize, and mixing a cystine derivative of the above-mentioned general formula (I) display as the 2nd step, It finds out that this cystine derivative and basic amino acid can be blended without generating an unpleasant smell, and came to complete this invention.

[0006]

[Embodiment of the Invention]Hereafter, this invention is explained in full detail. In the cystine derivative of the above-mentioned general formula (I) display used for this invention, as  $R^1$  and  $R^3$ , For example, a hydrogen atom, an aminocarbonyl group, an acetyl group, a PUROI oil group, An isopropanal PIORU group, n-BUCHIROIRU group, an isobutyroyl group, a sec-BUCHIROIRU group, A tert-BUCHIROIRU group, n-amylomaize yl groups, sec-amylomaize yl groups, tert-amylomaize yl groups, isoamylomaize yl groups, n-HEKISHI roil group, A cyclo HEKISHI roil group, n-heptanoly group, n-octanoyl group, 2-ethyl HEKISHI roil group, a NONIOIRU group, an ISONONI oil group, a decanoly group, An isodecanoly group, an undecanoly group, a lauroyl group, a tridecanoly group, An isotridecanoly group, a myristoyl group, a palmitoyl group, an isopalmitoyl group, A stearoyl group, an isostearoyl group, the Oreo yl groups, a docosanoly group, A methyl group, an ethyl group, a propyl group, an isopropyl group, n-butyl group, An isobutyl group, a sec-butyl group, a tert-butyl group, n-amyl group, a sec-amyl group, a tert-amyl group, an isoamyl group, n-hexyl group, a cyclohexyl group, n-heptyl group, n-octyl group, a 2-ethylhexyl group, a nonyl group, An isononyl group, a decyl group, an isodecyl group, an undecyl group, a lauryl group, A tridecyl group, an isotridecyl group, the Millis Chill group, a cetyl group, an isocetyl group, A stearyl group, an isostearyl group, an oleyl group, a behenyl group, 2-hydroxyethyl group, 2-hydroxypropyl group, a 2-hydroxy isopropyl group, a 2-hydroxy-n-butyl group, A 2-hydroxy isobutyl group, a 2-hydroxy-sec-butyl group, A 2-hydroxy-tert-butyl group, a 2-hydroxy-n-amyl group, A 2-hydroxy-sec-amyl group, a 2-hydroxy-tert-amyl group, A 2-hydroxy isoamyl group, a 2-hydroxy-n-hexyl group, 2-hydroxy cyclohexyl group, A 2-hydroxy-n-heptyl group, a 2-hydroxy-n-octyl group, A 2-hydroxy-2-ethylhexyl group, 2-hydroxynonyl group, A 2-hydroxy isononyl group, 2-hydroxy decyl group, a 2-hydroxy isodecyl group, 2-hydroxyundecyl group, 2-hydroxy

lauryl group, 2-hydroxytridecyl group, a 2-hydroxy isotridecyl group, 2-hydroxy Millis Chill group, 2-hydroxycetyl group, a 2-hydroxy isocetyl group, 2-hydroxystearyl group, a 2-hydroxy isostearyl group, 2-hydroxyoleyl group, 2-hydroxy behenyl group, a 3-methoxy-2-hydroxypropyl group, A 3-ethoxy-2-hydroxypropyl group, a 3-PUROPI oxy-2-hydroxypropyl group, A 3-iso PUROPI oxy-2-hydroxypropyl group, a 3-n-butoxy 2-hydroxypropyl group, A 3-isobutoxy-2-hydroxypropyl group, a 3-sec-butoxy-2-hydroxypropyl group, A 3-tert-butoxy-2-hydroxypropyl group, a 3-n-amyl 2-hydroxypropyl group, A 3-sec-amyl 2-hydroxypropyl group, a 3-tert-amyl 2-hydroxypropyl group, A 3-isoamyl oxy-2-hydroxypropyl group, a 3-n-hexyloxy 2-hydroxypropyl group, A 3-cyclohexyloxy 2-hydroxypropyl group, a 3-n-heptyloxy 2-hydroxypropyl group, A 3-n-octyloxy 2-hydroxypropyl group, a 3-(2-ethylhexyl) oxy-2-hydroxypropyl group, a 3-nonyloxy 2-hydroxypropyl group, A 3-iso nonyloxy 2-hydroxypropyl group, a 3-decyloxy 2-hydroxypropyl group, A 3-isodecyl oxy-2-hydroxypropyl group, a 3-undecyloxy 2-hydroxypropyl group, A 3-lauryl oxy-2-hydroxypropyl group, a 3-tridecyloxy-2-hydroxypropyl group, A 3-isotridecyloxy-2-hydroxypropyl group, a 3-Millis Chill oxy-2-hydroxypropyl group, A 3-Sept lles oxy-2-hydroxypropyl group, a 3-isocetyl oxy-2-hydroxypropyl group, A 3-stearyl oxy-2-hydroxypropyl group, a 3-isostearyl oxy-2-hydroxypropyl group, a 3-oleyl oxy-2-hydroxypropyl group, or a 3-behenyl oxy-2-hydroxypropyl group can be mentioned.

[0007]As  $R^2$  and  $R^4$ , for example A hydrogen atom, a methyl group, An ethyl group, a propyl group, an isopropyl group, n-butyl group, an isobutyl group, A sec-butyl group, a tert-butyl group, n-amyl group, a sec-amyl group, A tert-amyl group, an isoamyl group, n-hexyl group, a cyclohexyl group, n-heptyl group, n-octyl group, a 2-ethylhexyl group, a nonyl group, An isononyl group, a decyl group, an isodecyl group, an undecyl group, a lauryl group, A tridecyl group, an isotridecyl group, the Millis Chill group, a cetyl group, an isocetyl group, A stearyl group, an isostearyl group, an oleyl group, a behenyl group, 2-hydroxyethyl group, 2-hydroxypropyl group, a 2-hydroxy isopropyl group, a 2-hydroxy-n-butyl group, A 2-hydroxy isobutyl group, a 2-hydroxy-sec-butyl group, A 2-hydroxy-tert-butyl group, a 2-hydroxy-n-amyl group, A 2-hydroxy-sec-amyl group, a 2-hydroxy-tert-amyl group, a 2-hydroxy isoamyl group, a 2-hydroxy-n-hexyl group, 2-hydroxy cyclohexyl group, a 2-hydroxy-n-heptyl group, a 2-hydroxy-n-octyl group, A 2-hydroxy-2-ethylhexyl group, 2-hydroxynonyl group, A 2-hydroxy isononyl group, 2-hydroxy decyl group, a 2-hydroxy isodecyl group, 2-hydroxyundecyl group, 2-hydroxy lauryl group, 2-hydroxytridecyl group, A 2-hydroxy isotridecyl group, 2-hydroxy Millis Chill group, 2-hydroxycetyl group, A 2-hydroxy isocetyl group, 2-hydroxystearyl group, a 2-hydroxy isostearyl group, 2-hydroxyoleyl group, 2-hydroxy behenyl group, a 3-methoxy-2-hydroxypropyl group, A 3-ethoxy-2-hydroxypropyl group, a 3-PUROPI oxy-2-hydroxypropyl group, A 3-iso PUROPI oxy-2-hydroxypropyl group, a 3-n-butoxy-2-hydroxypropyl group, A 3-isobutoxy-2-hydroxypropyl group, a 3-sec-butoxy-2-hydroxypropyl group, A 3-tert-butoxy-2-

hydroxypropyl group, a 3-n-amyloxy 2-hydroxypropyl group, a 3-sec-amyloxy 2-hydroxypropyl group, a 3-tert-amyloxy 2-hydroxypropyl group, A 3-isoamyl oxy-2-hydroxypropyl group, a 3-n-hexyloxy 2-hydroxypropyl group, A 3-cyclohexyloxy 2-hydroxypropyl group, a 3-n-heptyloxy 2-hydroxypropyl group, A 3-n-octyloxy 2-hydroxypropyl group, a 3-(2-ethylhexyl) oxy-2-hydroxypropyl group, A 3-nonyloxy 2-hydroxypropyl group, a 3-iso nonyloxy 2-hydroxypropyl group, A 3-decyloxy 2-hydroxypropyl group, a 3-isodecyl oxy-2-hydroxypropyl group, A 3-undecyloxy 2-hydroxypropyl group, a 3-lauryl oxy-2-hydroxypropyl group, A 3-tridecyloxy-2-hydroxypropyl group, a 3-isotridecyloxy-2-hydroxypropyl group, A 3-Millis Chill oxy-2-hydroxypropyl group, a 3-Sept Iles oxy-2-hydroxypropyl group, A 3-isocetyl oxy-2-hydroxypropyl group, a 3-stearyloxy-2-hydroxypropyl group, a 3-isostearyl oxy-2-hydroxypropyl group, a 3-oleyloxy-2-hydroxypropyl group, A 3-behenyl oxy-2-hydroxypropyl group etc. can be mentioned.

[0008]Although any of an optically active substance or racemate may be sufficient as the cystine derivative of the above-mentioned general formula (I) display, L object and DL object are preferred. Also in the form of a certain salt, can use conveniently the compound expressed with the above-mentioned general formula (I), and as an example, Salts with inorganic acid, such as a hydrochloride, hydrobromate, hydrogen iodide acid chloride, a nitrate, sulfate, and an phosphate, Methanesulfon acid chloride, an ethane-sulfonic-acid salt, a benzenesulfonic acid salt, A p-toluenesulfonic-acid salt, l-camphor sulfonate, acetate, A lactate, citrate, a tartrate, succinate, a maleate, fumaric acid chloride, Acidic-amino-acid salts, such as organic acid salt, such as gluconate, a glycolic acid salt, a saccharic acid salt, a benzoate, fatty acid salt, malate, and a pyroglutamic acid salt, aspartic acid, and glutamic acid, etc. can be mentioned. These salts are independent or may be used combining two or more sorts. It may be used further again combining the salt and educt more than a kind.

[0009]In this invention, although the loadings in particular of the cystine derivative of the above-mentioned general formula (I) display are not restricted, in order to give the above-mentioned operation to pharmaceutical preparation, what is necessary is just to blend them 0.001% of the weight or more during a total presentation, and they are preferably blended by 0.01 to 2% of the weight of within the limits.

[0010]L-arginine, L-lysine, L-histidine, etc. are mentioned as basic amino acid. Although the loadings in particular of basic amino acid are not limited, they are usually about 0.01 to 5.0 % of the weight.

[0011>About the carboxyl group content anionic polymers made to act on basic amino acid first in this invention in order to prevent an unpleasant smell. If a carboxyl group is contained and an emulsion is formed in a water-soluble thing or an aquosity medium into a molecule, it will not be what is limited especially, For example, the homopolymer of unsaturated carboxylic acid, such as acrylic acid, methacrylic acid, and maleic acid, a copolymer, acrylic acid / vinyl

acetate copolymer, etc. can be illustrated. Also in these carboxyl group content anionic polymers, acrylic acid, methacrylic acid, and the polymer constituted considering more than a kind as the main ingredients among methacrylic acid alkyls are used especially preferably. It will be as follows if a trade name shows a thing typical about these carboxyl group content anionic polymers. Namely, "Carbopol 940", "Carbopol 941", "Carbopol 934", "Carbopol ETD-2020", "PEMYUREN TR-1", "PEMYUREN TR-2", "URUTOREZU 10" (all are the products made by B.F.Goodrich Chemical), "high screw WAKO 104", "high screw WAKO 105" (all are the Wako Pure Chemical Industries, Ltd. make), etc. are mentioned. Although the loadings of carboxyl group content anionic polymers are suitably decided with the viscosity etc. which are made into a using feeling or the purpose, they are generally about 80 to 120% of the weight of loadings of basic amino acid.

[0012]Among an aqueous medium, if carboxyl group content anionic polymers are made to act on basic amino acid, the cystine derivative of the above-mentioned general formula (I) display will be mixed succeeding. An unpleasant smell generated when this cystine derivative and basic amino acid are made to live together by blending the cystine derivative of the above-mentioned general formula (I) display, since basic amino acid is beforehand neutralized with carboxyl group content anionic polymers is remarkably mitigable.

[0013]If a proper quantity of a eucalyptus extract, l-menthol, and dl-camphor are further blended with the cosmetics manufactured by the method of this invention as an unpleasant smell prevention ingredient, an unpleasant smell can be prevented thoroughly. Even if these unpleasant smell prevention ingredients exist by nature and they are synthetic compounds, they are not cared about.

[0014]The aqueous ingredient and powder which are used for the usual cosmetics besides said essential ingredient, a surface-active agent, oils, a moisturizer, alcohols, a pH adjuster, an antiseptic, coloring matter, an antioxidant, a thickener, perfume, etc. can be suitably blended with the cosmetics concerning this invention again if needed.

[0015]

[Example]Next, although an example is given and this invention is explained concretely, this invention is not limited to these examples.

[0016](Example 1) The essence of the presentation shown in Table 1 was manufactured using the N,N'-diacetyl cystine dimethyl ester which is a cystine derivative of the above-mentioned general formula (I) display, and an unpleasant smell of the product was evaluated. The manufacturing method of the essence was performed by adding B ingredient to A ingredient, carrying out stirring mixing, adding C ingredient there, carrying out stirring mixing, adding D ingredient further, and carrying out stirring mixing, after heating A ingredient in front, B ingredient, and C ingredient at 50 \*\*, respectively and carrying out the stirring dissolution.

[0017]So that clearly from Table 1 Example 1 of this invention, In comparison with the sample

(comparative example 1) which does not contain at all the carboxyl group content anionic polymers which are essential ingredients, even if compared with the sample (comparative examples 2 and 3) which differs in a mixed sequence foreword from the first even if carboxyl group content anionic polymers are included, an unpleasant smell was reduced greatly.

[0018]

[Table 1]

美容液の作成

成 分 名		比較例1	比較例2	比較例3	実施例1
A	N, N'-ジアセチル-L-シスチンジメチルエステル	0.50	0.50	0.50	
	L-アルギニン				0.30
	精 製 水	24.50	24.50	24.50	14.70
B	L-アルギニン	0.30	0.30		
	精 製 水	14.70	14.70		
	カルボキシビニルポリマー*1%水溶液			30.00	30.00
C	N, N'-ジアセチル-L-シスチンジメチルエステル				0.50
	L-アルギニン			0.30	
	精 製 水			14.70	24.50
	カルボキシビニルポリマー*1%水溶液		30.00		
D	精 製 水	残余	残余	残余	残余
不快臭の強さ		非常に強い	かなり強い	かなり強い	弱い

注) \*カルボキシビニルポリマー:「ウルトレズ 10」(商品名、BF Goodrich 社)

[0019](Example 2) The cream of the presentation shown in Table 2 was manufactured using the N,N'-diacetyl cystine dimethyl ester which is a cystine derivative of the above-mentioned general formula (I) display, and an unpleasant smell of the product was evaluated. The manufacturing method of cream was performed in following order.

1. Heat the A-D ingredient in front at 50 \*\*, respectively, and carry out the stirring dissolution.
2. Heat A ingredient and B ingredient to 80 \*\*, stirring by a homomixer, add B ingredient to A ingredient slowly, and make it emulsify it.

It may cool to 3.50 \*\* and C ingredient may be added, stirring mixing may be carried out, D ingredients may be added after that, and stirring mixing is carried out. Furthermore E ingredient may be added, stirring mixing is carried out, and it is considered as a product.

[0020]To carboxyl group content anionic polymers a priori so that clearly from Table 2 Arginine, Examples 1 and 2 which blended N,N'-diacetyl cystine dimethyl ester since basic amino acid, such as histidine, was mixed, Compared with the comparative example which added basic amino acid and N,N'-diacetyl cystine dimethyl ester at once to carboxyl group content anionic polymers, an unpleasant smell was reduced greatly.

[0021]

[Table 2]

## クリームの作成

成 分 名			比較例	実施例1	実施例2
A	水相成分	カルボキシビニルポリマー	0.35	0.35	0.35
		濃グリセリン	10.00	10.00	10.00
		精製水	34.65	34.65	34.65
B	油相成分	菜種油	12.00	12.00	12.00
		トリステアリン酸	1.00	1.00	1.00
		ポリグリセリル	0.50	0.50	0.50
		レシチン	0.50	0.50	0.50
C	添加剤	ビタミンAパルミテート	0.05	0.05	0.05
		L-アルギニン	0.30	0.30	0.30
		L-ヒスチジン	0.05	0.05	0.05
		d-ピロリドンカルボン酸	0.50	0.50	0.50
		ナトリウム液			
		グリチルリチン酸	0.10	0.10	0.10
		ジカリウム			
		N,N'-ジアセチル-L-シスチンジメチルエステル	0.50		
		L-セリン	0.10		
		L-アラニン	0.10		
		L-ロイシン	0.10		
		精製水	残余	適量	適量
D	添加剤	N,N'-ジアセチル-L-シスチンジメチルエステル		0.50	0.50
		L-セリン		0.10	0.10
		L-アラニン		0.10	0.10
		L-ロイシン		0.10	0.10
		精製水		残余	残余
E	賦香成分	ユーカリエキス			0.10
		リメントール			0.001
不快臭の強さ			かなり強い	弱い	非常に弱い

[0022]

[Effect of the Invention]An unpleasant smell generated by this invention when this cystine derivative and basic amino acid are made to live together by blending the cystine derivative of the above-mentioned general formula (I) display, since basic amino acid is beforehand neutralized with carboxyl group content anionic polymers is remarkably mitigable.

[Translation done.]